

stakeholders. The role of this group is to provide decision support for key Skills Program Delivery Protocol choices, provide greater perspective for participation across multiple programmatic offerings, and provide oversight to the assessment, data collection, evaluation, and in-process programmatic adjustments. A key value is support by experienced master teachers, multicultural educators, and others to answer questions and help handle problem solving for staff.

c) Professional development, technical assistance, and problem resolution assistance is also available from Scientific Learning. Scientific Learning provides electronic, telephone, and on-site support if needed by programs like Tri-City CDC.

Criteria III: Research Based and Program Effectiveness

1. The Correlation between the Fast ForWord curricula and the National Reading Panel follows. Please see Attachment B containing the brochure, "Evidence of Effectiveness: Scientifically-Based Reading Research Basis of the *Fast ForWord* Programs", prepared by Scientific Learning Corporation. Please see Attachment C containing the brochure, "Correlations with National Reading Panel Recommendations and *Fast ForWord*", prepared by Scientific Learning Corporation.
2. There is no Mathematics component at this time because it is the strategic direction for the target group to achieve literacy levels sufficient to teach a mathematics curriculum (i.e. 5th grade nationally statistically normalized referenced proficiency levels.⁴) This may be considered after students achieve grade level or higher reading proficiency.
3. Research and Program Effectiveness
The Correlation between the Fast ForWord Curricula and the Michigan State Standards are in the Attachment. C "Michigan English Language Arts Curriculum Framework correlated to Scientific Learning Fast ForWord Products (Early Elementary – Late Elementary)". Please also see references to ELL populations as cited in "Fast ForWord Outcomes", prepared by Scientific Learning Corporation.

1. The curricular material has been shown to be effective at increasing child achievement. Fast ForWord was created by Scientific Learning. Scientific Learning Corporation combined the latest advances of more than 25 years of scientific research with proprietary technology to create products and services that help develop in children the skills that form a strong foundation for learning. Fast ForWord materials target the language and reading skills identified by reading research as key to reading and learning.

2. To date, thousands of individuals have achieved gains of one to two years in language or reading skills with the Fast ForWord products. Numerous independent studies as well as detailed research and outcomes data consistently confirm the effectiveness of these products. Publications such as The New York Times, The Los Angeles Times, Newsweek, Time and others have reported on the powerful science behind the Fast ForWord products as well as the success experienced by children across the country.

One example of a controlled randomized Clinical Trial was conducted at Rutgers University in 1994-1995 in Newark, New Jersey. The clinical results were published in the January 1996 issue of Science, one of the world's most prestigious peer-reviewed journals (Tallal, et al., Science.271:81-84)

⁴ Educational literature since 1969 has supported this tactical and strategic decision by the ChurchesI to attack literacy first. This is especially true when linguistic distinctions exist in the child's school versus the home environment.

The early data showed rapid improvements in language skills with the research prototype of Fast ForWord Language, including significant gains in oral language comprehension, speech discrimination, grammar and syntax. And in 1996 the results were proved in a "real world" setting. In collaboration with over 60 independent professionals at 35 sites in US and Canada, after Fast ForWord Language participation children experienced the same dramatic improvements in language as those who participated in the initial controlled randomized clinical trial. At each site, independent speech and language professionals or educators selected and administered Fast ForWord Language to children aged 4 to 14 who exhibited difficulties with either listening or language comprehension skills. Each of the 35 sites reported conclusive validation of the technology behind Fast ForWord Language:

- 90% of the children experienced significant gains in one or more tested areas
- Most children made significant gains in multiple areas, including listening, speaking, attention, language fundamentals, grammar, and ability to follow directions
- Gains were, on average, 1 to 2 years in 4 to 8 weeks

The products evolved from the work of noted research scientists Drs. Michael Merzenich and Bill Jenkins at the University of California, San Francisco, and Drs. Paula Tallal and Steven Miller at Rutgers University. Dr. Merzenich, who is a member of the National Academy of Sciences, and Dr. Jenkins are internationally known for their research in the science of brain plasticity, that is the concept that the brain changes as we learn new skills. Understanding brain plasticity has helped the development of improved learning strategies for children with language and reading problems. Their research collaboration resulted in a key finding: with the help of computers, phonemes and other speech sounds could be slowed down and digitally enhanced so that they can be differentiated. Using this technology in an intensive, adaptive product, the scientists discovered that children can develop a wide range of critical language and reading skills such as phonological awareness, phonemic awareness, fluency, vocabulary, comprehension, decoding, working memory, syntax, grammar and other skills necessary to learn to read or become a better reader. The optimal learning environment used in Fast ForWord is based on scientifically validated methods of learning and includes motivation, intensity, frequency, and adaptively. When combined with precise protocols and the technology, rapid advances in learning occur.

A correlation of the Fast ForWord product line with the recommendations of the National Reading Panel follows.

Documentation exists of the effectiveness of the proposed curricular approach for target populations of specific interest. Please see the Fig. 1 thru 5. In addition, the diagnostic and assessment of children (employing tools such as AIMSWeb in combination with instructional process design and management) has been shown to support student gains. The use of systematic formative evaluation systems with students with severe educational needs such as special education or Title I have been linked to important gains in student achievement (L. Fuchs, 1986) with effect sizes of .7 and greater. For interpretive purposes, an effect size of .7 would mean that a student who was at the 50th percentile without formative evaluation would be expected to perform at the 76th percentile with formative evaluation. Additional confirmation of the use of diagnostic and assessment tools includes the report of the Secretary of Education's Leadership Academy Assessment Committee from the Reading First Initiative that determined that Reading- Curriculum-Based Measurement (R-CBM) - a standardized 1-min sample of oral reading where the number of Words Read Correct (WRC) is counted - and certain measures of Early Literacy have SUFFICIENT evidence for use in Screening, Progress Monitoring, and Outcome for Grades 1-3 and in subsequent grades.

The Skills program design has been specifically planned around individualized instructional diagnostics, assessment, delivery, monitoring, and communications.

The diagnostics and assessment portions include special pre/In-process/post diagnostics and assessment procedures. Instruments administered include the Gates-McGinnity test (a nationally

available norm referenced test), the AIMSWeb test of reading proficiency (correlated with both State Standards and national references), and diagnostics specific to the curricular materials used. Individualized delivery occurs in both online (Internet-supported) and classroom-laboratory (individual and small-group) modes. In both the online and classroom delivery monitoring of student activities and progress for purposes of instructional management provides in-process information that supports staff intervention or coaching on very specific instructional issues and topics.

In addition, based on extensive research and student trials, the Fast ForWord products are individually adaptive and aligned with Reading First Five Essential Components of Reading Instruction: phonemic awareness, phonics, vocabulary development, reading fluency and reading comprehension strategies.

A school-based randomized trial held in the Fall of 1997 in collaboration with 19 schools in 9 districts in California, Texas, Illinois, Indiana, and Nebraska established effectiveness in schools. The goal of this controlled study, that included over 400 children in kindergarten through 3rd grade, was to determine the effectiveness for children who were "at-risk" for failure in reading and language skills. Classroom teachers selected the children who were at-risk and randomly assigned them to either the experimental group that used Fast ForWord Language or to the comparison group (matched to the experimental group by age and gender) that remained in the regular classroom and received non-Fast ForWord Language instruction. Data from the School-Based Randomized Trial confirmed the earlier conclusions that resulted from the initial Controlled Randomized Clinical Trial reported in the peer-review journal Science and the Multi-Site Field Study. Again, average gains in the School-Based Randomized Trial were 1 to 2 years on standardized measures of language comprehension or phoneme awareness following 4 to 6 weeks of Fast ForWord Language participation (Miller et al., 1999).

Please see attached graphs for additional information.

Criteria IV: Evaluation/Monitoring

1-2. Assessment and Monitoring Student/Program Status

1. The Skills Program uses the Gates-McGinnity test as an initial achievement assessment tool after enrollment. Depending on test instrument results additional diagnostic testing is performed for initial positioning within the individualized curriculum sequencing. The AIMSWeb tool (Edformation) is used to assess the child at the beginning, in-process, and at completion. This provides a rapid measurement and diagnostic tool that aids in instructional delivery and management. This information is combined with teacher-originated subjective assessments to provide a highly individualized diagnostic perspective for each child. As seen below, in-process assessment and monitoring provides daily progress information for teaching staff. Gates-McGinnity and AIMSWeb are administered face-to-face. Depending on the contracts with the District, accommodations for students with disabilities can be made. The Fast ForWord curriculum has been highly successful in clinical settings for addressing the needs of students with many auditory disabilities. The use of computer based media allows for a broad participation by students with disabilities although some costs due to equipment or staff certifications may be incurred. A case-by-case evaluation is needed of student IEP to determine suitability of the Program.

2. Progress Track is the tool which will be used to evaluate, monitor and track student progress. Fast ForWord Progress Tracker records each student's progress for that day and since the beginning of instruction. The application is Internet enabled, and this means that teachers and others who review child's progress with Fast ForWord Progress Tracker can do so from any computer that can connect to the Internet. This feature allows teachers or other staff to review progress reports from home or to supervise Fast ForWord activity at several schools from a single location. Reviewing participants'